

To: Jackson, Susank[Jackson.Susank@epa.gov]; Barash, Shari[Barash.Shari@epa.gov]
Cc: Thomas, Dana[Thomas.Dana@epa.gov]
From: Vlcan, Manjali
Sent: Mon 2/29/2016 6:25:38 PM
Subject: RE: Stream Protection Rule Meeting w/OSMRE and Corps

Sorry, to be more precise, SHPD gave comments prior to the proposal. We have not yet reviewed the current draft they are considering for final.

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Ms. Manjali Gupta Vlcan  
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Washington, D.C.  
202-566-0373 (Phone)  
[vlcan.manjali@epa.gov](mailto:vlcan.manjali@epa.gov)

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**From:** Vlcan, Manjali  
**Sent:** Monday, February 29, 2016 12:56 PM  
**To:** Jackson, Susank <Jackson.Susank@epa.gov>; Barash, Shari <Barash.Shari@epa.gov>  
**Cc:** Thomas, Dana <Thomas.Dana@epa.gov>  
**Subject:** RE: Stream Protection Rule Meeting w/OSMRE and Corps

No, we have not yet. I am hoping to at least skim it before the meeting on Thursday.

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From: Jackson, Susank
Sent: Monday, February 29, 2016 12:19 PM
To: Barash, Shari <Barash.Shari@epa.gov>; Vlcan, Manjali <Vlcan.Manjali@epa.gov>
Cc: Thomas, Dana <Thomas.Dana@epa.gov>
Subject: FW: Stream Protection Rule Meeting w/OSMRE and Corps

Has SHPD reviewed and comment on the rule?

Susam

From: Landers, Timothy

Sent: Monday, February 29, 2016 12:17 PM

To: Jackson, Susank <Jackson.Susank@epa.gov>

Subject: RE: Stream Protection Rule Meeting w/OSMRE and Corps

Hi Susan. The objective of this meeting is for the Office of Surface Mining to provide EPA with an update on where they are with regard to promulgating final SMCRA regulations ("Stream Protection Rule"), to answer any preliminary questions OWOW/OST/OWM reviewers may have regarding draft rule language, and vice-versa.

Ex. 5 - Deliberative

Tim Landers

U.S. EPA

Wetlands Division

202-566-2231

From: Payne, Harry [<mailto:hpayne@osmre.gov>]

Sent: Thursday, February 25, 2016 3:04 PM

To: Landers, Timothy <Landers.Timothy@epa.gov>

Ex. 5 - Deliberative

Hi Tim - got your message ... I would like to discuss this issue with you next week in the attached email

Ex. 5 - Deliberative

----- Forwarded message -----

From: Mackinnon, Daniel <dmackinnon@osmre.gov>

Date: Thu, Feb 25, 2016 at 2:54 PM

Subject: Re: Intermittent stream assessment, comparing them to standards

To: "Payne, Harry" <hpayne@osmre.gov>

Sounds good, thanks again Harry,

Dan M.

On Thu, Feb 25, 2016 at 12:52 PM, Payne, Harry <hpayne@osmre.gov> wrote:
Hi Dan - I want to discuss this issue with EPA next week ...

On Thu, Feb 25, 2016 at 1:21 PM, Mackinnon, Daniel <dmackinnon@osmre.gov> wrote:
Also this (just arrived),

Dan M.

----- Forwarded message -----

From: Charles Hawkins <chuck.hawkins@usu.edu>
Date: Thu, Feb 25, 2016 at 11:18 AM
Subject: Re: Intermittent stream assessment, comparing them to standards
To: "Mackinnon, Daniel" <dmackinnon@osmre.gov>

You could also reduce the number of reference sites used, but this would need to be decided on a case by case basis with the number needed largely a function of state size and environmental heterogeneity.

The EPA is interested in working with states and other partners to develop biological assessment programs for intermittent streams. You might chat with Susan Jackson (EPA OWOW headquarters) to see if any joint projects make sense. Jackson.susank@epa.gov.

Cheers,

Chuck

From: "Mackinnon, Daniel" <dmackinnon@osmre.gov>
Date: Thursday, February 25, 2016 at 11:07 AM
To: Charles P Hawkins <chuck.hawkins@usu.edu>
Subject: Re: Intermittent stream assessment, comparing them to standards

Thanks again Chuck,

Dan M.

On Thu, Feb 25, 2016 at 10:18 AM, Charles Hawkins <chuck.hawkins@usu.edu> wrote:
Dan:

I did a more refined (but still rough) estimate of what it would cost to develop indices for a given state assuming you needed to sample 200 reference sites and 50 degraded sites to calibrate and test indices.

Note that this approach requires identifying and sampling a site of reference sites to produce predictions of expected taxa (index scores) at assessed sites (your permitted sites), but after that monitoring could be largely restricted to the permitted sites (and perhaps a small set of reference sites), because the reference site analysis provides an estimate of the natural variability in aquatic biota over

time at individual sites.

Based on what our costs are (and assuming full overhead), the cost for an individual state would be approximately \$750,000. That assumes a two year project with 2 months a year of a PI's time, full-time data tech/project ramrod, seasonal field crews, field travel costs, sample processing, miscellaneous supplies, and data analysis. Overhead at universities can vary depending on who ultimately provides funds. At our lowest negotiated overhead via MOU (~20%), total university cost (not including any middleman skimming) would be about \$620,000. These numbers could change, of course, depending on specific circumstances.

It would be possible in some cases to develop indices that apply to multiple states and thus save on overall costs.

Hope that helps your planning.

Chuck

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From: "Mackinnon, Daniel" <dmackinnon@osmre.gov>
Date: Wednesday, February 24, 2016 at 12:05 PM
To: Charles P Hawkins <chuck.hawkins@usu.edu>
Subject: Re: Intermittent stream assessment, comparing them to standards

Cool is tomorrow AM better? I start work at 6am.

Dan M.

On Wed, Feb 24, 2016 at 11:50 AM, Charles Hawkins <chuck.hawkins@usu.edu> wrote:
Dan - I just had a conference call scheduled for 2:30-3:00 my time, so we probably need to shoot for after 3:30.

From: "Mackinnon, Daniel" <dmackinnon@osmre.gov>
Date: Wednesday, February 24, 2016 at 11:45 AM
To: Charles P Hawkins <chuck.hawkins@usu.edu>
Subject: Re: Intermittent stream assessment, comparing them to standards

Sounds good I will give you a call. Thanks again Chuck,

Dan M.

On Wed, Feb 24, 2016 at 11:22 AM, Charles Hawkins <chuck.hawkins@usu.edu> wrote:
Hi Dan -

I might have some time to chat sometime after 2:00 my time.

Chuck

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From: "Mackinnon, Daniel" <dmackinnon@osmre.gov>
Date: Wednesday, February 24, 2016 at 9:32 AM
To: Charles P Hawkins <chuck.hawkins@usu.edu>
Subject: Re: Intermittent stream assessment, comparing them to standards

Morning Chuck, I've got a few questions on the costs associated with creating an index for intermittent streams.

From our last conversation it sounded like you might be a person to talk to about this.

Is there a good time to speak with you this week?

Thanks again,

Dan M.

On Wed, Feb 3, 2016 at 11:54 AM, Charles Hawkins <chuck.hawkins@usu.edu> wrote:
Well might be a different craig walker. Turns out I know 2 craig walkers and neither may be your guy.

BACI people:

Tony Underwood
Alan Stewart-Oaten

Cheers,

Charles P. Hawkins
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From: "Mackinnon, Daniel" <dmackinnon@osmre.gov>
Date: Wednesday, February 3, 2016 at 10:50 AM
To: Charles P Hawkins <chuck.hawkins@usu.edu>
Cc: Brandon Schneider <bschneider@osmre.gov>, Craig Walker <cwalker@osmre.gov>
Subject: Intermittent stream assessment, comparing them to standards

Good morning Dr. Hawkins, just left you a voicemail as well.

I work for the DOI, and have a question about index values (using macroinverts. and habitat measures to create an assessment value) on intermittent streams, and the establishment of standards to determine stream quality based on these index values.

Please give me a call on my personal cell phone Ex. 6 - Personal Privacy if you have the time to chat for a few minutes.

Thanks for your time,

Dan M.

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